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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,676	12/31/2003	Kee Young Yang	11037-163-999	2232

24341 7590 12/19/2005

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EXAMINER

GREENE, JASON M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,676

Applicant(s)

YANG, KEE YOUNG

Examiner

Jason M. Greene

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/31/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities: The second sentence of paragraph [0022] is incomplete. Specifically, the Examiner suggests that Applicants replace the phrase "_____" at line 21 of page 3 of the specification with the appropriate language. Applicants are reminded that no new matter may be introduced in making the correction.

Appropriate correction is required.

Claims

3. With regard to claim 1, the Examiner suggests Applicants rewrite the word "enters" in line 4 as "entering" to correct a minor grammatical informality.

Allowable Subject Matter

4. Claims 1-7 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

Fischer discloses an air pre-cleaner comprising a housing provided with an inlet (11), a drain valve (18) disposed in the housing and configured to drain impurities separated from the intake air entering the housing through the air inlet, and an air exhaust pipe (12) through which the intake air is exhausted from the housing, where a lower portion of the air exhaust pipe protrudes inside the housing, and the air exhaust pipe has a lateral section with a first end portion that is disposed near the air inlet, wherein the air exhaust pipe is cylindrical and the first end portion defines an apex equal to an apex of an opposite portion of the air exhaust pipe in Figs. 1 and 2, col. 1, lines 47-51 and col. 2, line 49 to col. 3, line 6.

Park discloses an air cleaner capable of being used as a pre-cleaner (i.e. upstream of a second cleaner) comprising a housing provided with an inlet (14), a drain valve (18) disposed in the housing and configured to drain impurities separated from the intake air entering the housing through the air inlet, and an air exhaust pipe (26) through which the intake air is exhausted from the housing, where a portion (the portion supporting the air filter) of the air exhaust pipe protrudes inside the housing, and the air exhaust pipe has a lateral section with a first end portion that is disposed near the air

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inlet, wherein the air exhaust pipe is cylindrical and the first end portion defines an apex equal to an apex of an opposite portion of the air exhaust pipe in Fig. 1 and col. 2, lines 12-48.

Applicants' admitted prior art teaches an air pre-cleaner comprising a housing provided with an inlet (103), a drain valve (105) disposed in the housing and configured to drain impurities separated from the intake air entering the housing through the air inlet, and an air exhaust pipe (107) through which the intake air is exhausted from the housing, where an upper portion of the air exhaust pipe protrudes inside the housing, and the air exhaust pipe has a lateral section with a first end portion that is disposed near the air inlet, wherein the air exhaust pipe is elliptical and the first end portion defines an apex equal to an apex of an opposite portion of the air exhaust pipe in instant Fig. 5.

The prior art made of record does not teach or fairly suggest the air pre-cleaner of claim 1 wherein an upper portion of the air exhaust pipe protruding inside the housing has a lateral section with a first end portion that is disposed near the air inlet that defines more of an apex than an opposite portion thereof. The Examiner notes the phrase "a first end portion... and defines more of an apex than an opposite portion thereof" in claim 1 has been interpreted to mean that the first end portion of the upper portion of the air exhaust pipe is sharper (i.e. has a smaller radius of curvature – see specification at page 2; lines 6-8 and Fig. 3) than an opposite end portion of the exhaust pipe. Additionally, claim 1 has been interpreted such that the specifically claimed shape

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applies to the entire air exhaust pipe and not only to the portion protruding into the housing.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Petersen, Linhart, Walker, Itakura et al., Benham and Catterson references disclose similar air pre-cleaners.

7. This application is in condition for allowance except for the above noted formal matters.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

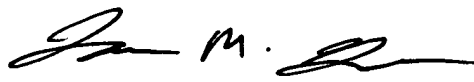
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M. Greene
Examiner
Art Unit 1724


12/9/05

jmg
December 9, 2005